



B.S. Abdur Rahman

Crescent

Institute of Science & Technology
Deemed to be University u/s 3 of the UGC Act, 1956
GST Road, Vandalur, Chennai 600 048

**One Day National Seminar on
“High Performance Materials and Its Characterization for Aerospace and
Mechanical Engineering Applications”**

On November 15th, 2023

Organized by

**Department of Mechanical Engineering, BS Abdur Rahman Crescent
Institute of Science and Technology**

In Association with Aeronautical Society of India (AeSI), Chennai Branch.

Convenors

Dr. H. Siddhi Jailani,

Dean/SMS.

Dr. A.S.Selva Kumar,

Professor and HOD,
Department of Mechanical Engineering,
BS Abdur Rahman Crescent Institute of
Science and Technology, Chennai.

Coordinators

Dr. K.Mohamed Bak, Asst Professor

Dr. S. Jeavudeen, Asst. Prof. (Sel.Grade)

Department of Mechanical Engineering
School of Mechanical Sciences,
BS Abdur Rahman Crescent Institute of
Science and Technology, Chennai.

Resource Persons:

Dr. D. SATHIA NARAYANAN,

Scientist F,
National Institute of Ocean Technology (NIOT),
Ministry of Earth Sciences, Chennai.

Dr. S. RAJENDRA BOOPATHY,

Emeritus Professor (AU-FRG),
Dept. of Mechanical Engineering,
CEG Campus, Anna University, Chennai.

Dr. K. KALAICHELVAN

Professor,
Dept. of Ceramic Technology,
ACT Campus, Anna University, Chennai.

PREAMBLE

The Department of Mechanical Engineering has organized one day National Seminar on “High Performance Materials and Its Characterization for Aerospace and Mechanical Engineering Applications” ” held on 15.11.2023 at **B. S. Abdur Rahman Crescent Institute of Science and Technology**, Chennai, in Association with **Aeronautical Society of India (AeSI), Chennai Branch**.

Total 48 students registered for this seminar including external and internal participants.

Brochure of the Seminar

ABOUT THE WORKSHOP

- High-performance engineering materials are a category of materials specifically designed and developed to meet the demanding requirements of various engineering applications. These materials play a crucial role in enhancing the performance, reliability, and efficiency of products and systems in industries such as aerospace, automotive, civil, electronics, and more.
- In addition to these characteristics, high-performance engineering materials may also be designed to meet specific industry standards and regulations. Engineers and material scientists continually research and develop new materials to meet the evolving needs of various sectors, enabling innovations and advancements in technology and manufacturing.
- Workshops that focus on teaching common characterization techniques and their advanced applications can be highly valuable in this field.



PALEONS

Prof. Dr. T. Maragasan, Vice-Chancellor
 Dr. N. Thajuddin, Pro Vice-Chancellor
 Dr. N. Raja Harolin, Registrar
 Dr. C. Senthil Kumar, Chairman, A&I, Chennai Branch

CONVENERS

Dr. H. Siddhi Jalland, Dean/SMS
 Dr. A.S. Subrahmanar, IROD/Mechanical

COORDINATORS

Dr. K. Mohamed Rizk, Asst. Prof. / Mechanical
 Dr. S. Jeyarajaseen, Asst. Prof. (Sol. Gr.) / Mechanical

RESOURCE PERSONS

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 Scientist E,
 National Institute of Ocean Technology (NIOT),
 Ministry of Earth Sciences, Chennai.

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 Dept. of Mechanical Engineering,
 CEG Campus, Anna University, Chennai.

Dr. R. KALACHEYAN,
 Professor,
 Dept. of Ceramic Technology,
 ACT Campus, Anna University, Chennai.

One Day National Seminar

on

HIGH PERFORMANCE MATERIALS AND ITS CHARACTERISATION FOR AEROSPACE AND MECHANICAL ENGINEERING APPLICATIONS

(HPMCAMA'23)

15th NOVEMBER 2023

Organized
by

DEPARTMENT OF MECHANICAL
ENGINEERING



In Association with

AERONAUTICAL SOCIETY OF INDIA (AeSI)
(Chennai Branch)



ABOUT THE INSTITUTION



R.S. Abdul Rahman Crescent Institute of Science & Technology (founded in 1958) is the UGC A&I 1958, India, formerly Crescent Engineering College, is a renowned institution throughout India for its quality in teaching and research. The institution is committed to focus on three dimensions of higher education viz., quality teaching, innovative research and appropriate applications of knowledge through extension, outreach and consultancy activities. The institution is located on the Chennai - Tiruchy National Highway, 7 km from Tambaram and 2 km from Vandalur Railway Station and 17 km from the Chennai International Airport.

ABOUT SCHOOL OF MECHANICAL SCIENCES



Department of Mechanical Engineering started in 1958, is one of the oldest departments of this institution with a glorious past and continuing success. The programmes of the department are accredited by the National Board of Accreditation (NBA). Modern multimedia teaching technologies are used to supplement lectures and enhance the quality of teaching. We induce high degree of professionalisation among students.

The Department is equipped with state-of-the-art facilities such as Robo Lab, 3D Printer, CNC machines, CMM, EDM, Composite chamber, Piezo-actuator apparatus, Roughness Tester and Computerized engine testing facility. Major software including ANSYS, NX, CATIA, Creo and MATLAB are available for the academic and research purpose. The Department of Mechanical Engineering offers the following programmes:

- B.Tech. Mechanical Engineering
- M. Tech. CAD/CAM
- Ph. D. - Full Time/Part Time

ADDRESS FOR THE CORRESPONDENCE

Dr. K. Mohamed Rizk, Assistant Professor
 Dr. S. Jeyarajaseen, Asst. Prof. (Sol. Gr.)
 Department of Mechanical Engineering,
 R.S. Abdul Rahman Crescent Institute of Science and
 Technology, Chennai, Tamilnadu, India.
 Email: mohamedr@aparcrescent.edu.in

REGISTRATION

Student and Research Scholar : Rs. 200
 Faculty and Industry Delegates : Rs. 400
 A&I Members : Rs. 100

Note: Students must bring their college ID & A&I membership ID at the time of participation. Registration is compulsory.

REGISTRATION LINK



<https://www.crescent.ac.in/registration>

IMPORTANT DATES

Last date for Registration : 14.11.2023

ACCOUNT DETAILS

BANK NAME	: INDIAN OVERSEAS BANK
BRANCH	: VANDALUR
ACCOUNT NO	: 191701000019588
ACCOUNT NAME	: Department of Mechanical
ACCOUNT TYPE	: SAVINGS
IFSC	: IOB00019437



One Day National Seminar

on

HIGH PERFORMANCE MATERIALS AND ITS CHARACTERISATION FOR AEROSPACE AND MECHANICAL ENGINEERING APPLICATIONS

(HPMCAMA'23)

15th NOVEMBER 2023

Full Name : _____
 Designation : _____
 Institution : _____
 Address : _____
 Mobile : _____
 E-mail : _____

Registration Fee : _____
 Proof Attached after payment : _____

Kindly send the registration form along with the Payment proof to the organizer.

Registration includes Refundments and workshop kits.

Target Audience

This seminar is open to Faculty members, Research scholars, UG and PG students, and Industry professionals in the relevant disciplines.

Date : _____
 Place : _____ Signature of the Applicant

Invitation of the Seminar



The seminar started with recitation of Qirath. The seminar coordinator, Dr. K. Mohamed Bak, extended a warm welcome to the attendees, and Dr. A. S. Selvakumar, HoD – Mechanical and Dr. H. Siddhi Jailani, Dean (SMS), offered their felicitations thereafter.

Session I:

The guest of this seminar **Dr. D. Sathia Narayanan, Scientist F**, National Institute of Ocean Technology, Chennai has presented the topic on **“High Performance Materials and its applications”**.

His lecture focused on:

- The performance of advanced materials, including hybrid composites, titanium alloys, aluminum alloys, and high-performance coatings.



Session II:

Dr. S. Rajendra Boopathy, Emeritus Professor, Department of Mechanical Engineering, College of Engineering Guindy, Anna University, Chennai has presented the topic on **“Effect of welding processes on ferrite content, microstructure and mechanical properties of super duplex stainless steel 2507 welds”**.

The emphasis of his lecture was on

- Welding procedures and post-weld heat treatment.
- Microstructure, and mechanical properties of super duplex stainless steel (SDSS) 2507 welds.



Session III:

Dr .K Kalaichelvan, Professor, Department of Ceramic Technology has presented the topic on “Testing of Materials and Ceramic Matrix Composites for Aerospace and Mechanical Engineering Applications”.

His presentation focused on:

- Ceramic matrix composites (CMCs) intended for applications in aerospace and mechanical engineering.
- The various testing methods such as
 1. Mechanical Testing,
 2. Fatigue Testing,
 3. Toughness Testing,
 4. Specialized Testing for Ceramic Matrix Composites.



All the session were informative to the faculty members and participants. The seminar was concluded with the vote of thanks by Dr. S. Jeavudeen – coordinator of the event.

Total number of students registered: 48

External Participants: 04

Internal Participants: 44

AeSI Members: NIL

S.NO	STUDENT NAME	COLLEGE NAME
1	W.JENSLIN	AC TECH CAMPUS, ANNA UNIVERSITY
2	ABINESH Y	TAGORE ENGG COLLEGE
3	SIVA BALAN M	TAGORE ENGG COLLEGE
4	SRIJITH SARAVANAA	TAGORE ENGG COLLEGE
5	Dr.MD JAVEED AHMED, ASST PROFESSOR	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
6	SRI RAM S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
7	FARIH FYZAL KARATTIYATIL	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
8	MOHAMED HANNAN	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
9	BHARANI DHARAN N	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
10	G KISHORE	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
11	MOHAMED ABDUL AZEEZ	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
12	ZULFEQUR AHMED KHAN	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
13	KAMALESH R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
14	GNANESH G	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
15	PRASANA RAM J	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
16	KISHORE KUMAR V	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
17	SRI RAM KUMAR V	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
18	ARNOLD SAMSON	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY

19	RAJA RAM R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
20	B.GUGAN	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
21	MANIKANDAN K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
22	MAFAZ AHMED A	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
23	LOGESH P T	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
24	AAKASH M	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
25	MOHAMED ASHIQ K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
26	GOWTHAM S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
27	HAMEED FAYAZ H	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
28	MOHAMED MOHSIN B	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
29	KAVIN NILAVAN I	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
30	RAVI RAJ S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
31	KAMESH J	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
32	PRAVEEN G	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
33	TIMOTHY R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
34	VASANTH KUMAR K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
35	MOHAMED HASEEB Z	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY

36	THOMSON Y	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
37	PERAISOODAN VISWANATH	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
38	MOHAMED SHAHIL AKTHAR	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
39	MOHAMED SHABAN K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
40	MANIKANDAN G	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
41	ROHAN S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
42	RAGUL K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
43	MOHAMED ZUBER I	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
44	FARHAN MOHAMED	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
45	MOHAMED ZAFAR	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
46	MOHAMED MALIK ALI	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
47	MOHAMED DANISH MUSTAFA	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
48	PRADEEP R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY

Sample Certificate:



Certificate of Participation

has participated in One Day Seminar on “**High Performance Materials and its Characterization for Aerospace and Mechanical Engineering Applications**” held on 15.11.2023 at Department of Mechanical Engineering, B. S. Abdur Rahman Crescent Institute of Science and Technology, Chennai.

Dr. K. Mohamed Bak
Dr. S. Jeavudeen
COORDINATORS

Dr. A.S. Selvakumar
HOD/MECH

Dr. H. Siddhi Jailani
DEAN/SMS